# ALBERT FRADERA SOLA

I consider myself as a multi-task and open-minded person. I enjoy having excellent relationship with my colleagues and I can easily adapt to different and new projects. I am very committed to my work and I always try to give the maximum performance in order to achieve the best results.





## **EDUCATION**

Current | 2018

# PhD Candidate, Quantitative Proteomics

JGU University

Mainz, Germany

• PhD thesis: Computational approaches to mass spectrometry based quantitative proteomics

2017 | 2016

#### M.Sc. in Omics Data Analysis

University of Vic

Parcelona, Spain

- Master thesis: Development of a scoring function for finding differential expression application to Lolium Perenne
- · Erasmus + grant fellow



## RESEARCH EXPERIENCE

Current | 2018

#### PhD candidate

Butter laboratory - Institure Molecular Biology

Mainz, Germany

- · PhD candidate with Dr. Falk Butter (F.Butter@imb-mainz.de)
- · Publications: 1 first-author paper (in submission), 5 co-author papers

2017

#### Master student

Narcis Fernandez-Fuentes - IBERS

Aberystwyth, UK

- · MSc student with Dr. Narcs Fernandez-Fuentes (naf4@aber.ac.uk)
- · Publications: 1 first-authtor paper, 1 co-author paper



## WET LAB PROJECTS AND RELATED SKILLS

## Immunoprecipitation of RNA binding proteins in S. cerevisiae

- I was responsible for designing the experimental setup and generating the data that allowed the RNA binding protein interactome investigation.
- · Keywords: Yeast | Protein Immunoprecipitation | Experimental design

#### • Mass spectrometry quantitative proteomics

- I used chemical labeling (DML) and label free mass spectrometry sample preparation protocols on several projects
- · Keyword: Mass spectrometry | DML | LFQ | In-gel digestion

View this CV online with links at https://github.com/AFraderaSola/CV/blob/master/cv.html

## **CONTACT**

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### SOFTWARE SKILLS

R	
MaxQuant	
Bash	
Python	

## LANGUAGE SKILLS

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Catalan			
Spanish			
English			
German			

## 🖳 DRY LAB PROJECTS AND RELATED SKILLS

### Network-based assignment of RNA binding proteins functionality

- · Function-based networks were created from quantitative proteomics data and made accessible through a shiny app.
- · Keywords: Network | Functional analysis | KEGG | GO | R Shiny

#### Temporal proteome profiling of Xenopus and Leismania species

- · Proteome differential expression was investigated at different stages
- · Clustering (Self Organizing Maps) and dimesionality reduction techniques (Principal Component Analysis) were applied.
- · Keywords: Proteome | Differential expression | SOM | PCA | Clustering

#### Scoring function for RNAseq differential expression assessment

- · A scoring function was developed around three RNAsea differential expression assessment R packages (DESeq2, edgeR, limma+voom)
- · Keywords: NGS | RNA-Seg | Quality control | Differential expression

#### ChIPseq characterization of a novel ATPase in T. brucei

- · H2A.Z deposition was investigated and visualized with genome tracks
- · Keywords: NGS | ChIP-Seq | Genome tracks

## **♣** CONFERENCES AND COURSES

#### Conferences

- · 2022 | Statistical data analysis for genome-scale biology |Flash talk
- · 2021 | Network biology | Plenary talk
- · 2019 | FEBS advanced course | Poster presentation

#### Courses

- · 2022 | Data visualization for scientists
- · 2021 | Scientific writing
- · 2020 | Convincing scientific presentations

## **SELECTED PUBLICATIONS**

#### Genomics

- · 2022 | PLoS Pathogens | https://doi.org/10.1371/journal.ppat.1010514
- · 2021 | Nature Comunications | https://doi.org/10.1038/s41467-021-22861-2
- · 2021 | PLoS One | https://doi.org/10.1371/journal.pone.0249636
- · 2019 | PLoS One | https://doi.org/10.1371/journal.pone.0220518

#### **Proteomics**

- · 2021 | Journal of Cell Science | https://doi.org/10.1242/jcs.254300
- · 2020 | RNA | https://doi.org/10.1261/rna.076281.120

"I enjoy using multiomics tools to integrate different research disciplines"



Publication abstract's wordcloud

"I nurture data visualization skills as a path towards better science communication"

Document created with the R packages pagedown and datadrivency.

The source code is available on github.com/AFraderaSola/CV.

Last updated on 2022-07-20.